Assessing the Knowledge Level of Anganwadi Workers on Growth Monitoring and Counselling Services Under Integrated Child Development Scheme (ICDS) in 5 Blocks at Vadodara District of Gujarat

Dissertation
At
ICDS, Vadodara

By
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Under the guidance of
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MBA Hospital & Health Management
2013–15

IIHMR UNIVERSITY
Institute of Health Management Research
Jaipur
2015

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Chander Shekhar Sharma, student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone internship training at ICDS Gujarat March 2015 to April 2015.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Col. (Dr.) Ashok Kaushik
Dean, Academics and Student Affairs
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Jagajeet Prasad Singh

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I.C.D.S. Society

(District ICDS Society Management Unit-(Vadodara)
Zilla Panchayat, Vadodara,Gujarat

સંકલિત બાળ વિકાસ સેવા યોજના
મહિલા અને બાળ વિકાસ વિભાગ
ગુજરાત સરકાર

The Certificate is awarded to

Dr.Chander Shekhar Sharma

In Recognition of having sucessfully completed his internship at

ICDS Society,Vadodara,Gujarat

and has successfully completed his project on

Assessing the Knowledge level of Anganwadi Workers on Growth Monitoring and Counselling services under Integrated Child Development Scheme (ICDS)

He came across as a committed, sincere and diligent person who has a strong drive and zeal for learning.

We wish him all the best for future endeavours.

Smt. Naynaben S. Pargi
Programme Officer
ICDS Society
Distict Panchayat
Vadodara

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Assessing the Knowledge level of Anganwadi Workers on Growth Monitoring and Counseling services under Integrated Child development Scheme (ICDS) in 4 Blocks at Vadodara district of Gujarat** and submitted by **Dr. Chander Shekhar Sharma** Enrollment No. 18-1432, under the supervision of Associate Professor **J.P. Singh** for award of MBA Hospital and March **2015** to **April 2015** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

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Acknowledgement

Every successful story is a result of an effective team work, a team which comprises of a good coach and good team players. Likewise this thesis report is no exception. This has been a meticulous effort of a group of people along with me. I want to take this opportunity to thank each and every one who has been a part of this report.

To start with, I wish to thank my mentor and guide Prof. J.P. Singh. He has been a constant source of encouragement with her valuable inputs about the dissertation. His timely advice helped me realize what was required to conduct the research and collect the data and helped me complete it in an effective baby.

Secondly, I wish to thank Mrs.Naynaben C Pargi- Program Officer- ICDS- Gujarat Government. He was instrumental in providing me this opportunity and helping me in getting the relevant information.

Also, I wish to take this opportunity to thank all the CDPOs, block coordinators working at the ground level along with Mr. Jayesh Italia-MIS/ M&E, ICDS- Vadodara for helping me in compiling all the collected data in this report.

Preface

I started off my internship with a vision in my mind so as to be able to learn about the practical aspects of healthcare delivery system on Nutrition in a more detailed manner. Hereby, I take this opportunity to express my deep sense of gratitude to all those who have been instrumental in successful completion of my internship.

Any accomplishment requires blessings and efforts of numerous individuals and this work is no exception. I thank god Almighty for giving me this great opportunity to study and learn at this prestigious organization and help me to implement my theoretical knowledge into practical aspect.

This report is my master thesis for the conclusion of my MBA in Hospital and Health Management at IIHMR University, Jaipur. Moreover, it is also a conclusion of my internship at the Integrated Child Development Services, District Panchayat, Vadodara Gujarat. I really appreciated many people who helped me at the project.

The report comprises of my original work on Assessing the Knowledge level of Anganwadi Workers on Growth Monitoring and Counseling services under Integrated Child Development Scheme (ICDS) ,Vadodara District in Gujarat.

At last,I take immense pleasure to thank **Dr. S. D. Gupta** (*Director- IIHMR University*) and **Dr.Ashok Kaushik** (*Dean, IIHMR University, Jaipur*) for placing me in such an esteemed organization (ICDS) to undertake my dissertation program. I would thank **Integrated Child Development Services (ICDS), Gujarat** to provide me with an opportunity to work with them, where I gained basic knowledge about working of health system and its functionaries.

Dr. Chander Shekhar Sharma

April 2015

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Abbreviations

ANM	Auxillary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi centre
AWW	Anganwadi Worker
AWH	Anganwadi Helper
BCC	Behavior Change Communication
CDHO	Chief District Health Officer
CDPO	Child Development Project Officer
CMTC	Child Manutrition Treatment Center
DO	Data Operator
DIO	District Information Center
DPC	District Programme Coordinator
GoI	Government of India
ICDS	Integrated Child Development Services (ICDS)
IEC	Information education and communication
IFA	Iron and folic acid tablet
IMR	Infant Mortality Rate
IPCCD	Indian Public Health Standards
IYCF	Infant and Youbg Child Feeding
KSY	Kishori Shakti Yojana
MDG	Millenium Development Goals
MMR	Maternal Mortality Rate
MUAC	Mid-Upper Arm Circumference
NCV	Nutrition Community Volunteer
NFHS	National Family Health Survey
NFPSE	Non Formal Pre-School Education
NGO	Non-governmental organizations
NIC	National Information Centre
NHED	Nutrition Health and Education
NRHM	National Rural Health Mission
NPAG	Nutrition Programme for Adoloscent Girls
NV	Nutrition Volunteer
PHC	Primary health centre
PSE	Pre School Education
PRIs	Panchayati Raj Institutions
RDD	Regional Deputy Director
SEAR	South East Asian Regions
SPSS	Statistical Package for the Social Sciences
UNICEF	The United Nations Children's Fund
WCD	Women and Child Development
WHO	World Health Organisation

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DISSERTATION REPORT

Title of the study: Assessing the Knowledge level of Anganwadi Workers on Growth Monitoring and Counseling services under Integrated Child Development Scheme (ICDS) in Vadodara district of Gujarat.

1.1 Abstract

Introduction: Growth monitoring consists of routine measurements to detect abnormal growth, combined with some action when this is detected. It aims to improve nutrition, reduce the risk of death or inadequate nutrition, help educate carers, and lead to early referral for conditions manifest by growth disorders. As Anganwadi Worker invest time in this activity, evidence for its benefits and harms was sort. Growth monitoring is one of the important function of AWWs, for which they should be sufficiently trained.

Background of Study: Growth monitoring has unique and as yet, incompletely applied potential for promotion of child health and nutrition and is an educative tool for the mother with regard to child feeding, appropriate response to illness and an understanding of the various factors which play a role in growth and development of the child by the AWWs .

Objectives of Study: The key objective of the study is to assess the current knowledge among Anganwadi Workers on growth monitoring of children enrolled in Anganwadi center and counselling of beneficiaries

Methods: Descriptive Cross sectional study with convenient sampling was undertaken. Structured questionnaires were prepared addressing the objectives of the study and face-face interviews with AWWs were conducted.

Results: The study findings highlight that 100% of AWWs having the knowledge regarding the services provided under ICDS at AWC. In terms of knowledge regarding the weight gain by the children 67% of AWWs don't have proper idea and knowledge. 75% of AWW don't know how to use the electronic weighing machine to weight the children even after the training. Depending on response to question regarding the growth chart 87 % of AWW know the importance of growth chart and the colour difference provided in growth chart and for what colour code stand for. Almost 91% of Anganwadi worker don't know how to use the MUAC tape.

Conclusion: All the AWWs Requirement of refreher training of all AWWs regarding the ideal weight gain of children at specific age. Proper re-orientation of Electronic Weighing Machine at SEJA level or Block level of AWW required. This can be done by providing training hierchically, Ie, training of supervisors, block co-ordinators and CDPOs at block level who can further train the AWWs.

Key Words: Anaganwadi worker, Growth Monitoring, Electronic Weighing Machine, knowledge of AWW

1.2 Introduction of the study:

The Anganwadi worker (AWW) is the community based voluntary frontline worker of the ICDS programme. Selected from the community, he assumes a pivotal role due to her close and continuous contact with the beneficiaries. The output of the ICDS scheme is to a great extent dependant on the profile of the key functionary i.e. the AWW, her qualification, experience, skills, attitude, training etc.

An Anganwadi is the focal point for delivery of ICDS services to children and mothers. An Anganwadi normally covers a population of 1000 in both rural and Gramya areas and 700 in tribal areas. Services at Anganwadi center (AWC) are delivered by an Anganwadi Worker (AWW), who is a part-time honorary worker. He is a woman of same locality, chosen by the people, having educational qualification of middle school or Matric or even primary level in some areas. He is assisted by a helper who is also a local woman and is paid a honorarium being functional unit of ICDS programme which involves different groups of beneficiaries, the AWW has to conduct various different types of job responsibilities.

An AWW's multifarious role requires managerial, education, communication and Counselling Skills. The various job responsibilities of an AWW are:

A. <u>Planning for Implementation of ICDS Programme</u>

1. Village Mapping
2. Rapport Building with Community
3. Conducting Community Survey and Enlisting Beneficiaries

– Children 0-6 years

– Children 'At Risk'

– Expectant and Nursing Mothers

– Adolescent Girls

4. Birth and Death Registration

B. <u>Service Delivery</u>

1. Preparation and Distribution of Supplementary Nutrition

– Children 6 months to 6 yrs.

– Expectant and Nursing Mothers

– Children and Mothers 'At Risk'

2. Growth Monitoring

Promote Breast feeding and counsel mothers on IYCF

3. Assisting Health Staff in Immunization and Health Check-up of Children and Mothers
4. Referral Services
5. Detection of Disability among Children
6. Providing Treatment for Minor Ailments and first aid.
7. Management of Neonatal and Childhood Illnesses
8. Health and Nutrition Education to Adolescent Girls, Women and Community
9. Organising Non-formal Preschool Education Activities
10. Depot holder of medicine kit contraceptives of ASHA and under ICDS
11. Counselling Woman on Birth Preparedness
12. Assist CDPOs/Supervisors in implementation of KSY and SABLA

C. Information, Education and Communication

1. Mobilise Community & Elicit Community Participation
2. Maintain Liaison with Panchayat, Primary Schools, Mahila Mandals and Health functionaries etc.

D. Management and Organisation

1. Management of Anganwadi Centre
2. Maintenance of Records, Registers and Visitor's Books
3. Preparation of monthly progress Reports

E. Awards:

Mata Yashoda Award for best performing Anganwadi worker and Anganwadi Helper at state and District Level.

1.3 Background of District Vadodara

Vadodara district is one of the 33 districts of Gujarat state in western India. The district is divided into 8 Talukas and 10 blocks. Vadodara city is the administrative headquarters of this district.

1.3.1 Socio-Economic and Demographic Profile of the district

As of the 2011 India census Vadodara metropolitan area had a population of 4,165,626. In Vadodara, 9% of the population is under 6 years of age. Gujarati, Marathi, Hindi and English are the languages spoken in the city. Males constitute 52% of the population and females 48%.

The initial provisional data released by census India 2011, shows that density of Vadodara district for 2011 is 457 people per sq. km. In 2001, Vadodara district density was at 552 people per sq. km. Vadodara district administers 5,231 square kilometers of areas.

Average literacy rate of Vadodara in 2011 were 78.99 compared to 70.76 of 2001. If things are looked out at gender wise, male and female literacy were 85.39 and 72.03 respectively. For 2001 census, same figures stood at 80.07 and 60.79 in Vadodara District.

With regards to Sex Ratio in Vadodara, it stood at 934 per 1000 male compared to 2001 census figure of 919. Child Sex Ratio as per census 2011 was 897 compared to 886 of census 2001. In 2011, Children under 0-6 formed 15.69 percent of Vadodara District compared to 16.85 percent of 2001.

In ICDS**, t**he district is divided into 10 blocks namely, Dabhoi, Karjana, Padra-1, Padra-2, Savli-1, Savli-2, Shinor, Vadodara Gramya-1, Vadodar Gramya -2, Wagodiya. The area that has been chosen for the study is Wagodiya, Padra-1, Karjana, Savli-1 block.

Table 1: Table below shows the distribution of Anganwadi Center at Block Level

S.No	Name of Block	AWC	S.No	Name of Block	AWC
1.	Dabhoi	183	8	Vadodara Gramya -1	149
2.	Karjana	132	9	Vadodara Gramya -2	163
3.	Padra-1	120	10	Wagodiya	154
4.	Padra-2	135			
5.	Savli-1	102			
6.	Savli-2	112			
7.	Shinor	89		Total	1344

1.4 Literature review

A study titled Knowledge of Anganwadi Workers About Growth Monitoring in Delhi written by Sanjiv kumar Bhasin, Rakesh Kumar et al indicates that Growth monitoring is an excellent tool for assessing the growth of a child and for detecting the earliest changes in growth and to initiate appropriate interventions. As such, it contributes to the promotion of child health and nutrition and is an educative tool for the mother with regard to child feeding, appropriate response to illness and an under- standing of the various factors which play a role in growth and development of the child. Growth monitoring is one of the important function of AWWs, for which they should be sufficiently trained.

Study on Knowledge of Anganwadi Workers About Growth Monitoring by Rakesh kumar, saudan singh and KK dubey, The present study was conducted in an ICDS block, Alipur, in Delhi. The block has 100 AWWs who constituted the study population. A pretested, semistructured, open ended questionairre (35 questions) was administered to each. AWW using interview techniques, Fifty two percent of AWWs were aged below 30 years while 48% were between the age groups 31-40 years. Almost all (99%) of the AWWs had adequate knowledge regarding the BRIEF REPORTS significance of die lines on the growth charts indicating different grades of nutritional status. However, only 43% of AWWs had the knowledge that growth monitoring can be started for a child at any age below 6 years and 37% had wrong knowledge that assessment of correct age is not required for growth monitoring.

A Study on Status of Growth Monitoring Activities in Selected ICDS Projects of Rajasthan by Umesh kapil, N.Saxena. The present study revealed that 88% of the AWWs were educated upto primary school level. Sixty seven per cent workers had worked for more than 5 years in the ICDS programme. Preplacement training and subsequent in-service training was received by 88.3% and 67.5% of AWW's respectively. However, no special training on GM was received by any of the AWW studied. Seventy five per cent AWCs had Salter type weighing scales. In 9% of the AWCs, weighing scales were not in working condition. About 7% AWCs did not have any weighing scales. Growth charts for conducting GM activities were available at 83.3% of AWCs.

Growth monitoring is useful measure which can significantly contribute to the promotion of child health and nutrition. Growth monitoring brings about two way communications between the parents and the health worker. GM can serve as a focal point for offering multiple services for child and family welfare and increase community participation. Growth data if collected appropriately can be used at various levels such as sector, project, state and even national level to

guage change in nutritional status and to evaluate impact of development programmes on childhood under-nutrition.

1.5 Rationale for the Study

Growth monitoring is an excellent tool for assessing the growth of a child and for detecting the earliest changes in growth and to initiate appropriate interventions. As such, it contributes to the promotion of child health and nutrition and is an educative tool for the mother with regard to child feeding, appropriate response to illness and an understanding of the various factors which play a role in growth and development of the child [l].

Growth monitoring has unique and as yet, incompletely applied potential for assisting health workers and parents to identify children with early problems in order to apply corrective measures[2].

Growth monitoring is one of the important function of AWWs, for which they should be sufficiently trained. The present study was conducted to assess the knowledge of AWWs regarding growth monitoring and to find out the gaps in their knowledge. for better planning and implementation of growth monitoring at district level .

1.6 Research Question:

What is the current level of knowledge among the Anganwadi workers on Growth monitoring of children enrolled at Anganwadi center and counseling of beneficiaries in Vadodara district ?

1.7 Objectives:

The key objective of the study is to assess the current knowledge among Anganwadi Workers on growth monitoring of children enrolled in Anganwadi center and counselling of beneficiaries

1.8 Specific Objectives:

- **i.** To deduce an objective standard for knowledge level of Anganwadi workers working under ICDS from ICDS mission document & Review of Literature
- **ii.** To find the gap between the knowledge expected of an anganwadi worker to the knowledge he actually has.

iii. To recommend the measures to bridge the gap

1.9 Methodology:

1.9.1 Study Period: March 2015- April 2015

1.9.2 Study Design: Cross-sectional descriptive study

1.9.3 Study area: The study has been conducted in Wagodiya, Padra-1, Karjana, Savli-1 blocks of Vadodara district of Gujarat. 120 anganwadi centers were seleceted randomly from each block

1.9.4 Study Group: The sample for the present study comprises of 120 Anganwadi workers belonging to four Blocks of Vadodara Districts. I have selected 30 AWWs from Wagodiya, 25 AWWs from Padra-1 and 35 AWWs from Karjana and 30 AWWs from Savli-1. The nature and purpose of the study was explained to Anganwadi worker. The study was carried out with AWW consent and co-operation. The line listing of all AWCs was made for each block and the AWCs were selected randomly by a random number table.

1.9.5 Tools Applied: A face to face interview schedule was used as a tool for data collection with various questions framed on the knowledge among Anganwadi workers regarding the services of ICDS. Major content of the interview schedule was: socio-economic and demographic profiles of AWWs, Knowledge about various ICDS services especially growth monitoring under AWC done by AWW.

1.9.6 Data Collection: Quantitative and Qualitative study design was followed to collect necessary information on Anganwadi workers awareness regarding growth monitoring of Children. Data were collected personally by making personal visits to Anganwadi centres. Data was collected both from primary and secondary sources. Primary data was collected from all the Anganwadi workers. The secondary data was collected from official records, journals and literature form social science discipline and Guidelines.

1.9.7 Data Analysis: The data obtained was compiled and tabulated using the SPSS software along with Microsoft Excel wherever required.

1.9.8 Ethical Considerations: Informed consent was taken before starting the interview. If anyone disagreed to become part of the data collection process they were not forced by any means. Prior information was given before visiting any Anganwadi Center. Confidentiality was ensured to all participants.

1.10 Finding and Analysis:

a) Knowledge of Anganwadi Worker regarding the services provided under ICDS at AWC.

The day to day functioning of the AWC is a critical indicator of the effectiveness of the ICDS Programme. The Services provided under one roof of AWC are Supplementary Nutrition to Children from 6 months to 6 years, Pre School Education to Children of age group 3 to 6 years, Health checkups of Children , Adoloscent girls, Pregnant and Lactating women, Refferal Services, and Nutrition and Health Education to Adolosecnt girls , Lactating and Pregnant women.An attempt has been made in study to assess the knowledge of AWW regarding the services provided at AWC. As shown in table no 2, it was observed that 100% of interviewed AWW know the exact services which they have to provide at AWC.

Table 2: Percent distribution of Anganwadi Workers regarding the services provided under ICDS at Anganwadi Center (n=120)

Services	%
Supplementary Nutrition	100
Pre School Education	100
Health Check ups	100
Refferal Services	100
Nutrition and Health Education	100

b) Knowledge regaarding the weight gain by children per month

In children, growth is most rapid at the younger age. While the child is in the mother's womb,it grows many times from a tiny egg to a baby weighing between **2.5 kg- 3 kg** at birth. A healthy baby gains about **800 grams** each month during the **first two months** of life, about **600 grams** from **3 months** to **4 months**, around **400 grams** from **5 months** to **6 months**, and thereafter healthy child gains around **200 grams** each month up to **3 years**.

As figure 1 shows,Among the AWWs there is lack of Knowledge regarding the ideal weight gain of children. 67% of AWW dont know the exact weight gain even they take weight of child .33 % show the positive response .They got the knowledge through training and books provided to them or through FHW or MO visits at there AWC.

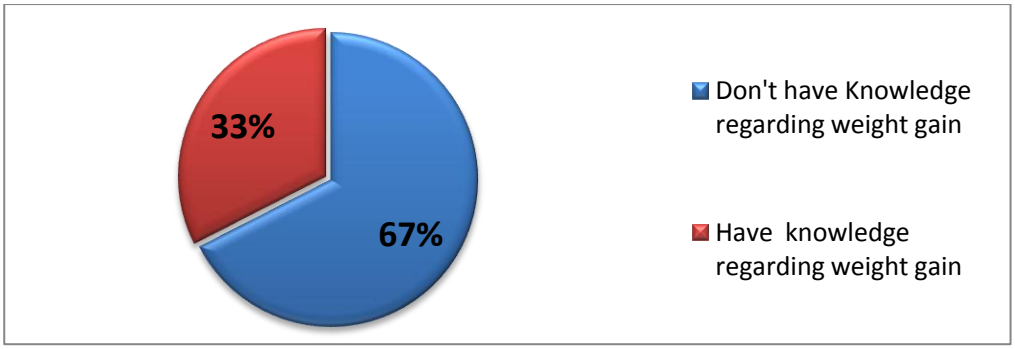

Figure 1: Percent distribution of the Anganwadi worker regarding the knowledge of weight gain by children per month (n=120)

(C) Relationship between work experience of AWW and the knowledge about weight gain of children at specific age

The above table shows that no AWW who had less than 3 years of experience had any knowledge about weight gain of children at specific age. Only 2 out of 27 AWW who had 5 years of experience had some knowledge about weight gain of children.

Most AWW with more than five years of experience (37 out of 72 AWW) reported having knowledge about weight gain of children. Thus only about 33 % AWW had some knowledge about weight gain of children at specific age.

D)Availability of Scales at AWC

We already discussed that children grow most rapidly from birth to 3 years, particularly in the first six months. In this age, they are also more vulnerable to diseases and inadequate nutrition which affect normal growth pattern. It is, therefore, essential to monitor growth of children in this age more frequently. The AWW should weigh all new borns and children from birth- 1 month weekly, one month- 3 years every month and 3-5 years at every three months. However, children who are severely underweight, or who have not gained weight for 2 months, or who are "at risk" of under nutrition, should be weighed frequently preferably every month.The golden principle of New WHO Growth Standards i.e. weighing and plotting weight of children on the basis of completed weeks/months, it is advisable to conduct four weighing sessions in a month at the AWC so that all children are weighed every month. Those children who do not attend AWC should also be motivated to attend the weighing sessions, without fail.

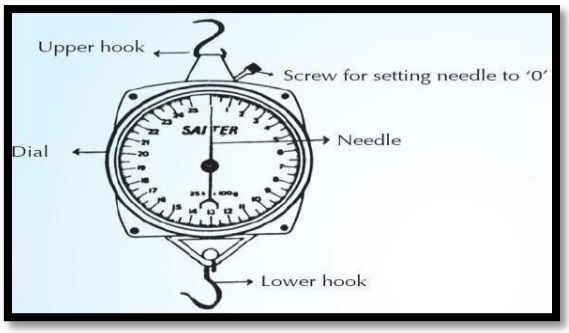

Figure 2: Salter Scale used at Anagnwadi Center

ICDS is currently using "Salter or Dial type scale".The Salter Weighing Scale is a reliable, light and portable scale, which can weigh children weighing up to 25 kg. The Salter scale is round in shape, with the needle in the centre.Weights are marked in kilograms around the dial. There are two variations of the Salter scale. One type has only 500 gm markings between kilograms, and the other has 100 gm as well as 500 gm markings between kilograms.The Scale has a screw on top to make the zero adjustment so that the needle points to zero before the child is weighed.

All the AWCs being visited had salter scale with marking of 100 grams and all the AWWs had proper knowledge of weighing the children.

c) Knowledge regarding the Electronic Weighing Machine

Recently Government has implemented the electronic weighing machine to reduce the manipulation of data. All the AWWs has received the training for operating the electronic weighing machine one month back .

As the Figure3, shows that even after receiving the training regarding the weighing machine 75 percent of AWWs don't know the proper steps to follow while operating the Electronic weighng machine.

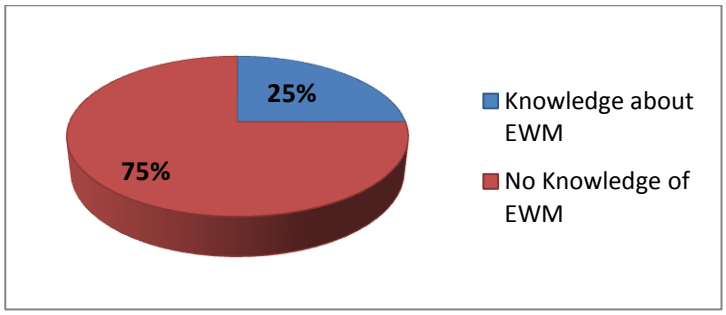

Figure 3: Percent Distribution of the Aanganwadi worker regarding knowledge of

Electronic weighing machine (n=120)

d) ***Knowledge about the WHO Growth Charts and Interpretion of Growth Charts***

Growth monitoring chart register is a part of the Mother & Child Protection (MCP) Card Package, which also includes a Mother & Child Protection Card and a Guide Book. Growth monitoring chart register is for recording the weight of children as per their **age up to 5 years**.The register is based on new WHO Child Growth Standards and contains weight-for-age growth charts. As per the new Standards, there are separate growth charts for girls and boys, as they have different weights and lengths beginning at birth and grow to different sizes related to their age. The first half of the register has growth charts for girls with '**pink border**' and the second half is for boys with the '**blue border**'. Each set of charts is followed by pages marked as "Index" for keeping the record of growth charts maintained in the register.

The Card having the child's name, father's and mother's name, family survey register number and weight at the time of birth are to be filled. Each growth chart has two axes. The horizontal line at the bottom of the chart is the X Axis. This is for recording the age of the child for five years and is called 'month axis'. The vertical line at the far left of the chart is the Y Axes. This is for recording the weight of the child from birth onwards and is called 'weight axis". The horizontal lines from bottom to top of the growth chart reflect the weights from 0 to 21 kg at 100 gm interval.

As per figure 4 , shows that Anganwadi worker having the knowledge of WHO Growth Chart of filling the chart but they always miss the IYCF part provided in the growth chart and and use of lead in place of pens to mark the weight in the chart. And, mostly they always forgot to join the lines between two weight dots.

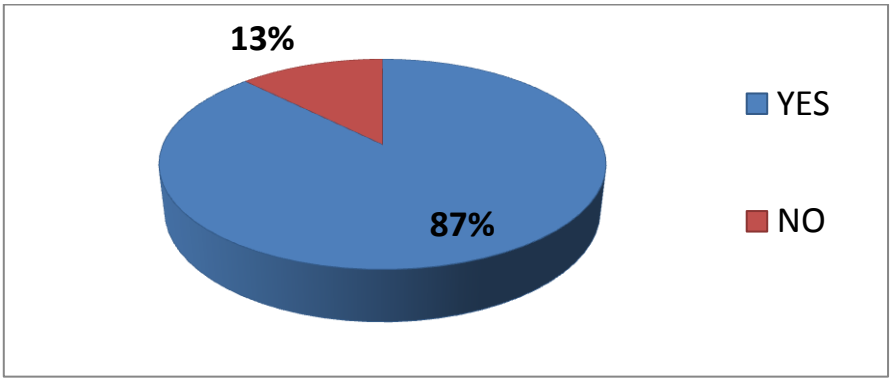

Figure 4: Percent Distribution of the Anganwadi worker regarding Knowledge of WHO Growth Chart (n=120)

Importance of Interpretion: When weight points plotted at different intervals are joined with a line, we get a Growth Curve. Depending on the pattern of monthly growth of a child, the direction of the growth curve may be upward, flat or downward. An upward growth curve indicates that the child is healthy, gaining weight and is growing. However, it is not only an upward curve which is important, but also a healthy upward curve, as a result of adequate weight gain each month. Whenever the weight gain is not sufficient as per the age of the child, then the growth curve is either flat or downward.

The WHO growth charts plotting helps in interpreting the following points

- ✓ Provides a visual record of the growth pattern of a child.
- ✓ Acts as a tool/aid for health and nutrition education to mothers.
- ✓ Detects growth faltering and weight loss in its early stages.
- ✓ Determines the grade of weight of child.
- ✓ Identifies beneficiaries for supplementary nutrition.

If plotted weight-for-age of a child falls on the green band, then the child's growth is normal; if it falls on the yellow band, child is moderately underweight, and if the plotted weight is on the orange band, the child is severely underweight.

Majority of the AWWs has replied almost the similar answer . The Line which comes under the Green Coloumn is for the normal and healthy children yellow for moderate malnourihed and Red for Severe malnourihed Children and this interpretion helps in monitoring the child weight and indicator for upcoming nutrition status so that necessary measures can be taken for making child healthy and nourihed.

e) Knowledge regarding the other mode of Growth Monitoring

WHO growth chart help the AWW to monitor the proper growth.Along with growth chart , there are other mode to identify the child growth is proper of not.especially by MUAC tape, clinincal signs.

MID-UPPER ARM CIRCUMFERENCE (MUAC) MEASURING TAPES

MUAC tapes are predominately used to measure the upper arm circumference of children, helping identify malnutrition. The major determinants of MUAC are muscle and sub-cutaneous fat, both important determinants of survival in malnutrition and starvation. The tape having the tri colour green, yellow and red with the markings.

As the Figure 5, shows among the interviewed AWWs 91 % of the anganwadi worker heard about the MUAC Tape, but don't know how to measure the reading. MUAC Tape were provided few years ago at anganwadi center but not use for measuring the nutrition status.

The use of MUAC Tape is done only at the CMTC/NRC centre for enrolling the children as one of the criteria for admission. On MAMTA Divas only weight is measured and immunisation is done at AWCs

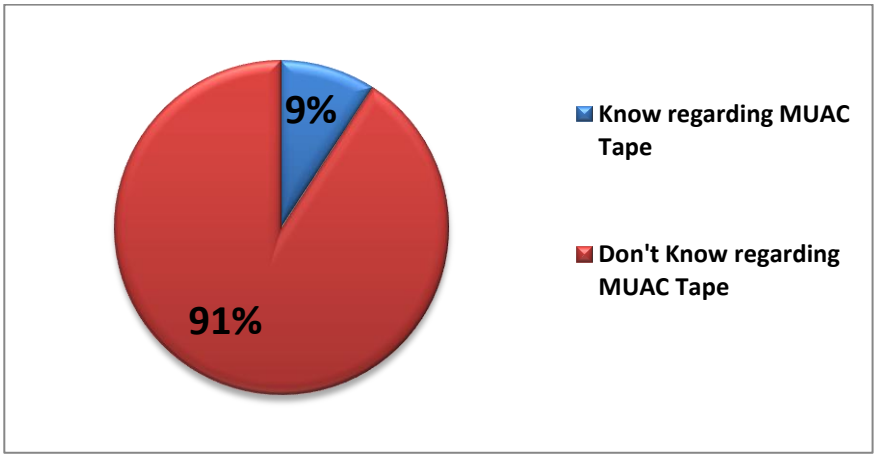

Figure 5: Percent Distribution of AWWs regarding the knowledge of MUAC TAPE(n=120)

f) Counselling of Parents regarding the growth and growth chart of Child

Counselling of the parents or guardian especially mother is very important step for maintaining the nutrition level of children through proper diet and care at home.

Basically ,three steps has to follow to counsel the mother regarding growth of children.

Step 1: advice to mothers is to observe the growth curve of the child and determine the growth trend. See if the child has gained adequate weight, not gained weight or lost weight, as compared to the previous month's weight.

Step 2: ask the mother what has been happening to the child during the last month to make her child's growth pattern happen that way.

Step 3: discuss with the mother specific action(s) he can take to promote her child's growth.

Counselling depend on the different age group :

A new born baby – 2 months old child

- Put the child to breast as soon as possible, preferably within one hour of birth
- Feed the yellowish first milk (colostrum) to give protection to the baby from diseases

• Exclusive breastfeeding for 6 months; do not give any other food or drinks and not even water

• Feed the breast milk whenever the child wants it, during day and night

• Breastfeed till the child is satisfied and the child stops sucking

• Continue breast feeding even if the child is sick

• Lactating mother should drink plenty of fluids (water, soups, tea, milk, lassi, etc.)

• Lactating mother should eat extra food – an extra snack / meal

• Get the child bcg, dpt, polio immunisation

• Get the child weighed every month

3-6 months old child

• Exclusively breastfeed the child, no other liquid to be given to the Child

• Breast feed 8-10 times during day and night

• Feed till the child is satisfied and the mother feels the breasts empty

• Continue breastfeeding during illness

• Give the child remaining doses of dpt and polio immunisation

7-11 months old child

• Give complementary foods followed by breast feeding or in between Breast feeds

• Modify the food cooked at home by: cooking it a little more, mashing It, taking out a portion for the baby, before adding masala/ chillies

• Start with a small quantity of food, increase the quantity so that Child takes half katori/cup of food at one time (size of katori/cup About 150 ml)

• Start semi-solid foods

• Give well cooked mahed foods like potato, banana, porridge made Of any cereal, milk/water, sugar/jaggery, bread/chapati/bhakary Soaked in milk or curry or vegetables, dal; the food should be soft but not watery

• Loose stools are due to infection and not due to introduction of Semi-solid foods

• Give plenty of fluids if child passes loose watery stools

1-2 years old child

• Child at one year should start eating the family food

• Continue to offer a wide variety of foods including family foods Such as rice, chapatti, dark green leafy vegetables, orange and yellow fruits, pulses and milk products

• Child should eat half as much as an adult in the family

• Feed the child about 5 times a day

• Feed from separate bowl and monitor how much the child eats

- Sit with the child and help her finish the serving
- Continue breastfeeding up to 2 years or beyond
- Give vitamin 'A' solution at six months interval up to the age of five Years

2-3 years old child

- Continue to feed family foods 5 times a day
- Help the child feed himself/herself
- Supervise feeding
- Ensure hand washing with soap before feeding

Majority of the AWWs has replied as per the guidelines has recommended . They do 4-5 home visits per day and discuss regarding the growth of children , tells the food which they provide at AWC is just supplement to fulfill the requirement of essential nutrition. As the district having the tribal area and migratory population .AWW face the difficulty in regular counselling but they try to call mother specially on BAL DIVAS and VATSALYA DIVAS celebration and keep open discussion and advice them to monitor the child at home and provide quality and quantity food . On BAL DIVAS award is given to child who is healthy and maintains hygiene, and advice other mother to make there child to win the prize next time.

Conclusion:

The study findings highlight that 100% of AWWs having the knowledge regarding the services provided under ICDS at AWC. In terms of knowledge regarding the weight gain by the children 67% of AWWs don't have proper idea and knowledge. 75% of AWW don't know how to use the electronic weighing machine to weight the children even after the training. Depending on response to question regarding the growth chart 87 % of AWW know the importance of growth chart and the colour difference provided in growth chart and for what colour code stand for. Almost 91% of Anganwadi worker don't know how to use the MUAC tape.

Recommendation:

i. Requirement of refreher training of all AWWs regarding the ideal weight gain of children at specific age.

ii. Proper re-orientation of Electronic Weighing Machine at SEJA level or Block level of AWW required. This can be done by providing training hierchically,ie, training of supervisors, block co-ordinators and CDPOs at block level who can further train the AWWs.

iii. Training and Counselling of Anganwadi Worker regarding the importance of MUAC Tape and using of tape along with Weighing the child to identify the malnourihed child.

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4. www.gujhealth.gov.in/pdf/PresentationofGSNMmadetoHon_bleCM.ppt
5. Manual of Growth Monitoring : NIPCCD

Annexure:

Annexure 1: List of people interacted during my internship.

S.No	Name	Designation
1)		District Development Officer

	Dr. Kuldeep Arya, I.A.S.	
2)	Smt. Naynaben C Pargi	Programme Officer I.C.D.S
3)	Jayesh Italia	D.P.C M&E, MIS
4)	Bhavesh	D.F.C.
5)	Dr. Chaari	RCHO
6)	Roopa Jhala	PA Health
7)	Gitaben tadvi	CDPO KArjan
8)	Dakshaben Patel	CDPO Padra
9)	Rashmiben Trivedi	CDPO Savli
10)	Sandhyaben Shukal	CDPO Vadodara Gramya 1
11)	Bhanuben ji Patel	CDPO Wagodiya

Annexure2: Questionaire in ENGLISH

S. No:

QUESTIONAIRE

IDENTIFICATION SECTION

	IDENTIFICATION NUMBER.....	Codes
O1.	Name of the State.....	
O2.	Name of the District.....	
O3.	Name of Taluka.....	
O4.	Name of Village.....	
O5.	Name of Anganwadi Centre.....	
O6.	Date of Establishment of Anganwadi Centre... ☐☐ ☐☐ ☐☐☐☐ Date Month Year	
O7.	Number of Household in village/ward	
O8.	Date of Interview...../...../20....	

QUESTIONAIRE

CONSENT:I am working with ICDS Society, Vadodara. A study is being conducting on Assessing the Knowledge of Anganwadi Worker regarding the Growth Monitoring and Counselling in Vadodara District. All responses will be kept confidential.Your interview responses will only be shared with research team members and will ensure that any information we include in our report does not identify you as the respondent. It is very important for the success of this study that you take part in this survey. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time..

Please fill the response in corresponding box and signature / Thumb Impression

Yes..... 1 → CONTINUE

No .....2 → END INTERVIEW

☐

Signature/Thumb Impression

Section A : Individual Information :

Name of AWW:_____

S.No	Question	Coding Categories	
A.1	Age (years)	/_____/	
A.2	Class Passed	/_____/	
A.3	Marital Status: *[1 = Married; 2 = Widowed; 3 = Divorced, Abandoned or Separated;4 =*	/_____/	

	Unmarried; 5 = Other (specify); 9 = Unclear]		
A.4	Religion *[1 = Hindu; 2 = Muslim; 3 = Christian; 4 = Other (specify); 9 = Unclear]*	/_____/	
A.4	Caste group (if applicable): *[1 = SC; 2 = ST; 3 = OBC; 4 = Caste Hindu; 5 = Other (specify); 9 = Unclear; NA = Not applicable]*	/_____/	
A.5	How long have you worked as an AWW? (completed years) *Investigator: If less than one year, write 0)*	/_____/	
A.6	How long have you worked in this centre? (completed years) *Investigator: If less than one year, write 0)*	/_____/	
A.7	Do you reside in the village in which the AWC is located? *[1 = Yes; 2 = No; 9 = Unclear]*	/_____/	
A.8	Date of starting operation	year/_____/	
A.9	What kind of food is normally provided to children in this AWC? *[1 = Cooked food, same every day; 2 = Cooked food, as per weekly menu;3 = Ready to eat food, 4 = dry take home rations, 5 = Others; 9 = Unclear]* Infants (0-3 years) Toddlers (3-6 years)	 /_____/ /_____/	
A.10	Who is responsible for cooking the food served to children in the age group of 3-6 years? *[1 = Anganwadi helper; 2 = Anganwadi worker; 3 = Local women's groups; 4 = Supplied at AWC by a centralized kitchen; 5 = "Ready to eat" food is served or distributed without cooking; 6 = Others (please* specify); *9 = Unclear]*	/_____/	
	How would you describe the overall regularity and timeliness of delivery of these items? *Investigator: Read Options* *[1 = Highly Regular; 2 = Regular; 3 = Irregular; 4 = Highly irregular; 9 =Unclear]* Supplementary Food (Grain, panjiri, murmura, etc.) Medicines	 /_____/ /_____/	
A.11	How many beneficiaries are enrolled at this AWC? 0-3 years 3-6 years Adolescent Girls Pregnant Women Lactating Mothers	 /_____/ /_____/ /_____/ /_____/ /_____/	
A.12	How many attend on an average day (in the 3-6 age group)?	/_____/	
A.13	How many children, aged 3-6, attended yesterday (or on the last working day if the AWC was closed yesterday)?	/_____/	
A.14	How many days of training have you received, approximately? At the time of starting work as an AWW After that	 /_____/ /_____/	
A.15	How many years have lapsed since the last training you attended?	/_____/	
A.16	Do you feel that the training you have received is adequate or inadequate? *[1 = Adequate; 2 = Inadequate; 9 = Unclear]*	/_____/	

Section B : Growth Monitoring Knowledge of AWW :

S.No	Question	Coding Categories	
B.1	**Do you know the importance of growth monitoring of children?** **[1= Yes; 2= No]**	/_____/	

B.	**In ICDS which standard is followed for growth monitoring ?** **[1= Weight for Height ; 2= Height for age; 3= Age for weight**	**Weight for height** **Age for weight** **Height for Age**	
B.2	**What should be normal weight gain of children from birth to 3 years?** **{average weight gain per month in grams, note the Answer of AWW}** Birth to 2 months 800 {standard} 3 months to 4 months 600 5 months to 6 months 400 7 months to 3 years 200	/_____/ /_____/ /_____/ /_____/	
B.3	**How frequently growth monitoring should be done?** up to age of 3 years (once every month) thereafter..(least once in 3 months)	/_____/ /_____/	
B.4	STEPS IN GROWTH MONITORING (Tick the response) Step 1: Determining correct age of the child Step 2: Accurate weighing of the child Step 3: Plotting the weight accurately on a growth chart of appropriate gender Step 4: Interpreting the direction of the growth curve and recognising if the child is growing properly Step 5: Discussing the child's growth and follow-up action needed, with the mother	/_____/ /_____/ /_____/ /_____/ /_____/	
B.5	**Do you the name of weighing machine available at your centre?** *[1 = Yes; 2 = No; 3 = available but not working; 4= hire when needed]*	/_____/	
B.6	**Which type of weighing Machine available at your AWC?** Bar scale Salter or Dial type scale Taring scale (digital scale) Electronic Weighing Maachine (Newly Provided)	/_____/ /_____/ /_____/	
B.7	**What is the maximum weight of the scale?** (Check How they weight) Bar scale (25 Kgs) Salter or Dial type scale (20 Kgs) Taring scale (digital scale)	/_____/ /_____/ /_____/	
B.8	**Check how AWW use the Electronic Weighing Machine ?**	**Correct** **Incorrect**	
B.9	**Do you how to fill the Growth monitoring Charts?** *[1 = Yes; 2 = No]*	/_____/	
B.10	**Which colour charts for?** (Tick the Correct response of AWW) **Boys** (Blue) **Girls** (Pink)	/_____/ /_____/	
B.11	**What are the following lines stands for? (note the response)** **Vertical** (age) **Horizontal** (weight)	/_____/ /_____/	
B.12	**What are three colours stands for provided in growth Charts?** (Tick the Correct response of AWW) **Green** (Normal) **Yellow** (Moderately Underweighted) **Orange** (severely Underweighted)	/_____/ /_____/ /_____/	

B.13	**What is the importance of plotting Growth Monitoring Charts?** (Tick the Correct response of AWW) • Provides a visual record of the growth pattern of a child. • Acts as a tool/aid for health and nutrition education to mothers. • Detects growth faltering and weight loss in its early stages. • Determines the grade of weight of child. • Identifies beneficiaries for supplementary nutrition.	/_____/ /_____/ /_____/ /_____/ /_____/	
B.14	**How will you interpret the growth curve?** (write the response) • If the growth curve of a child is moving upward • If the growth curve of a child is flat • If the growth curve of a child is moving downward	/_____/ /_____/ /_____/	
B.15	**How will you discuss the Growth Chart with the Mother?** (Tick the Correct response of AWW) • Determine the trend of the growth curve. • show the growth chart to the mother. • ask what he does. • listen to the mother to find out what has happened to the child. • discuss with her specific action(s) which he can take to promote growth.	/_____/ /_____/ /_____/ /_____/ /_____/	
B.16	**What are points you discuss with mothers of specific age group children's?** (Check with Standards) • **A NEW BORN BABY – 2 MONTHS OLD CHILD** • **A 3-6 MONTHS OLD CHILD** • **A 7-11 MONTHS OLD CHILD** • **1-2 YEARS OLD CHILD** • **2-3 YEARS OLD CHILD**		
B.17	**What are the instructions you give to mother of children fall under the following categories (colour) of Growth charts?** (Check with Standards) **Category (Green)** **Category (Yellow)** **Category (Orange)**		